

CHAPTER 2. DESCRIPTION OF ALTERNATIVES

Alternatives Scoping

The alternatives scoping process divided the study area into six major segments and analyzed the most reasonable transit alignments and technologies in each segment. The most feasible potential services were then grouped into four key alternatives for more detailed analysis. Below is summary of the options considered, along with the alternatives selected.

Figure 2-1
Alternative Scoping

	Tracy Park & Ride	Downtown Livermore to Greenville	Dublin/Pleasanton Station to Livermore	Bishop Ranch to Dublin/Pleasanton Station	Walnut Creek South Main to Bishop Ranch	Walnut Creek BART to South Main	
Light DMU	SP ROW	SP ROW	SP ROW via Owens	Iron Horse Trail	I-680 east side	California Blvd	Alternative 1
			South of Dublin Blvd. to El Charro "South"	Dougherty Road/Bollinger Canyon		680 East Side to Ygnacio Valley	
			South of Dublin Blvd to el Charro	Dublin Blvd to San Ramon Rd to 680			Alternative 2
			I-580 Median to El Charro	Dublin Blvd to 680			
Heavy DMU	UP ROW	UP ROW	South of Dublin Blvd to El Charro "South"	Iron Horse Trail	I-680 east side	680 to Ygnacio Valley	Alternative 3
	SP ROW	SP ROW	SP ROW through Hacienda	Dougherty Road/Bollinger Canyon			
			I-580 Meridian to El Charro				
BART to BRT	Altamont Pass and Grant Line Road	BART via I-580 to Greenville	BART via I-580 to Isabel	BRT via HOV lane and connector ramp	BRT via HOV lane and connector ramps	BRT via HOV to California	Alternative 4
		BART via SP ROW				BRT via HOV to Ygnacio Valley	

Major Issues

Dublin/Pleasanton Station to Bishop Ranch

- By far the most cost effective, direct and productive rail alignment is the Iron Horse Trail corridor. While rail service and trail use are compatible and “rail with trail” corridors are in place elsewhere in the United States, restoring rail service here presents significant political obstacles.
- A more circuitous rail alignment is possible via Dougherty and Bollinger Canyon Road through the Dougherty Valley. A wide median has been reserved in Bollinger Canyon road for future transit use and is compatible with Light DMU service. A tunnel would be required to reach Bishop Ranch.
- Contra Costa County is planning to extend the I-680 HOV lanes from I-580 to State Route 24, and Alameda County is working with Caltrans to add HOV lanes to I-580 from I-680 to Greenville, funding permitting. Contra Costa County selected Bus Rapid Transit in the I-680 HOV lane as its preferred alternative for connecting Dublin/Pleasanton BART with Walnut Creek.
- Direct connector ramps from the I-680 HOV lane are possible just south of Bollinger Canyon Road into the Chevron complex parking lot, as well as to Fostoria Road, just north of Crow Canyon Road.

Bishop Ranch to Walnut Creek BART

- The least costly rail alternatives run Heavy or Light DMU along the east edge of I-680, rather than in the median.
- Both Bus Rapid Transit and Light DMU can use a drop ramp at Newell Avenue in Walnut Creek and run along California Boulevard to serve all of downtown Walnut Creek on the way to the BART station.
- Heavy DMU must continue along I-680 through the State Route 24 interchange in an aerial structure parallel to the existing BART tracks to access the Walnut Creek BART station directly, since it is inappropriate on city streets.

Downtown Livermore to Dublin/Pleasanton Station

- The Phase 1 Study's El Charro alignment was adjusted in order to serve more riders. Rather than cutting diagonally through undevelopable gravel pits, the Phase 2 study alignment serves a potential TOD site in East Pleasanton, then runs along the north edge of I-580 rather than in the median. Running on the north edge significantly improves the TOD opportunities in Dublin.
- The narrowness of the former SP right-of-way and adjacent uses in Hacienda presents an obstacle for future rail service, but it is possible to bypass the areas of primary concern by a short bored tunnel and use of the Owens Drive median.
- Adding several stations in Hacienda or Dublin increases ridership potential significantly.

Major Issues

Greenville to Downtown Livermore

- Light DMU is possible only on the former SP right-of-way through the Greenville Industrial Park.
- Heavy DMU is possible on either the former SP or the current UP.
- New Transit Oriented Development is possible at Vasco, Mines and downtown.

Tracy

- Heavy DMU is the only appropriate technology along the UP line, where ACE currently runs, due to frequent freight service.
- Light DMU is the most appropriate technology along the former SP line through downtown Tracy due to frequency of street crossings.
- Providing intercept Park & Ride lots at both I-580 and I-205 is important for capturing significant ridership.
- Many corridors offer potential for Bus Rapid Transit, but the most cost effective appears to be Grant Line Road, Corral Hollow Road and 6th Street into downtown Tracy.
- It is possible to connect the county-owned former SP line over the Altamont to the UP line in Tracy via a new track connection just west of I-580.

Tracy to Greenville

- Light DMU is possible on the county-owned former SP right-of-way over the Altamont Pass. While the tracks must be laid, this right-of-way is in very good condition, requiring only minor slope stabilization and other improvements.
- Heavy DMU is possible on either the former SP line or the existing UP line.
- Due to the grading required, it is likely more cost effective to widen Altamont Pass Road by 12' to provide a reversible HOV lane than it would be to add an HOV lane to I-580. A reversible HOV lane on Altamont Pass Road could provide an excellent Bus Rapid Transit connection over the pass.
- Providing a station for the DMU options at BART's Greenville property is challenging due to the trackways' elevation, slope and curve, and transit-oriented development potential is limited for these options.

Alternatives Description

The following four alternatives were selected for the purpose of detailed cost and ridership analysis. The preferred alternative can combine the best elements of each.



Option 1: Light DMU via Hacienda and the Iron Horse Trail

As shown in Figure 2-2, Option 1 uses Light DMU technology to connect Tracy to Walnut Creek by way of the Dublin\Pleasanton BART station. Service begins at Banta, just east of Tracy, where a Park & Ride lot is provided to intercept I-205 and I-5 commuters. It continues along the former Southern Pacific (SP) right-of-way through downtown Tracy to an I-580 Park & Ride lot. It climbs Altamont Pass via the former SP into East Livermore, where it runs in parallel with ACE service into Pleasanton.

At Valley Road in Pleasanton, the service continues along the 100' wide, abandoned former SP right-of-way to Santa Rita Road. Just before Santa Rita, the rail would enter a bored tunnel to Owens Drive in the Hacienda Business Park. The tunnel serves two important purposes:

- It allows the rail line to avoid a narrow, 40' stretch of the SP right-of-way where residences and business are built immediately adjacent
- It allows the rail to go under congested intersections along Santa Rita, Las Positas and Stoneridge



In Option 1, tBART runs like a streetcar in the Owens Drive median.